UTAH COPPER DIVISION
INTEROFFICE LETTER

TO S. D. Taylor

DATE March 12, 1980

FROM P. Grubaugh

SUBJECT Proposed Mined Land Reclamation Work

During the period October 1979 to October 1980 (which is the mined land reclamation reporting period), there will be vigorous activity at both the mine and at the concentrator and tailing dike. The emphasis this year will be to plant a demonstration plot at the mine adjacent to the mine administration building with revegetation materials collected from Kennecott property propagated in the Kennecott greenhouse and planted once again on Kennecott property. In addition, tailing dike dust control will be a priority item this year.

There are several projects that will be undertaken at the mine. They include:

1. A demonstration plot that integrates reclamation and native plant landscaping on a disturbed site.
2. Planting trees for the east side relocation site.
3. Further revegetation for the Castro disturbed area.
4. Revegetation on the slopes of the mainline railroad.
5. Begin Douglas fir reforestation on north side of Bingham canyon.
6. Landscaping of the geology building.
7. Completion of the pipe yard planting across from the mine administration building.
8. Maintenance of previous reclamation work that includes lilacs in Copperton, the evaporation pond, and at the truck area.

1. One of the priority projects this year in reclamation is to provide a demonstration revegetation plot of a disturbed area. This selected site will include highway and railroad cuts as well as fill material.

   At the present time, the greenhouse native plant materials will be used for this project. The main planting materials will be Quercus gambelii and a hybrid oak from Coon Canyon. These acorns were collected in the fall of 1979 by reclamation personnel in Coon Canyon and are being propogated in the greenhouse at the present time. In addition to the oak grove (about 2,000 oak), the native plant landscaping will include Cercocarpus ledifolius, Hedysarum boreale, Agropyron smithii and Atriplex canescens. All of these species are native to that area.

(The importance of the UCD greenhouse materials cannot be stressed enough. The greenhouse insures the type of materials needed for the native plant project. Moreover, the quality of the plant materials is superior because the daily care is insured. The cost of the oaks from a nursery is presently about $6/oak, if available. If these were bought commercially, the oak grove itself would cost about $12,000). This planting will be the first of its kind in the cycle of "self-sufficiency" that the reclamation department is working towards; i.e. the cycle of collecting the plant materials by Kennecott personnel on Kennecott property, propagating in the Kennecott greenhouse and planting on the Kennecott property. For the first few years this demonstration plot will need maintenance. However after several years, it will be an extremely low maintenance project.

The convenience of this reclamation site by the mine administration building and the high public visibility were taken into consideration. In the future, conservation may inhibit groups from touring reclamation sites at the mine. This provides an easily accessible site. The number of tourists and visitors, as well as personnel at the mine, will be able to view an on-site reclamation site easily. It will also help to emphasize the amount of time involved to grow materials in the arid west.

2. The 200 trees (locust and poplar variety) set aside for the east side relocation will be planted. These trees were purchased by the mine in 1979 and have been "hardening off" at the greenhouse since then. The access to the site has been difficult because of road conditions.

3. The Castro disturbed area will receive further reclamation attention. Last year this area was contoured and seeded. The previously planted grasses and shrubs are struggling to grow vigorously but the truck and motorcycle traffic over the entire area inhibits growth. A deeper ditch was made to deter further trespassing but has not proven to be a deterent. The plan is to put trees as well as shrubs on this site this year, especially a thorny variety.

4. The slopes of the mainline railroad will be planted with shrubs and hand broadcasting of grasses and some hydroseeding.

5. The Douglas fir reforestation project will begin on the northwest side of the administration building and continue up by the "B" on the hill and up to the translator station. In the past it has been shown that Douglas fir seedlings are a very palatable browsing species for the wildlife so caution is being taken to deter the animals. The trees will be treated with a deer and rabbit deterrent. These seedlings will be bought from the State Nursery in Draper. They can be held there until they are transported to the mine and planted, (about five miles).

6. Landscaping of the geology building will include top soil and planting trees and shrubs.

7. The completion of the pipe yard planting across from the mine administration building will include the planting of the Populus Bolleana by the fence and Pyracantha Monrovia in front of the Eleagnus angustifolia. It will also be an item for the summer employees to clean up and prepare for some wild flowers.

8. The evaporation ponds are essentially completed except for completion of spreading lime and harrowing of the areas. The main ponds have been limed, seeded and fertilized and the response has been extremely favorable. The initial problem of dust at these ponds no longer exists there. The two different windbreaks of trees have grown well. The trees planted in 1976 show vigorous growth but have suffered from manmade growth inhibitors, specifically four-wheel drive trucks knocking them down or other blatant acts of vandalism. Further posting of NO TRESPASSING signs and increased security have not deterred the trespassing there. The 207 trees planted in August 1979 are doing well. It is yet to be seen, however, if vandalism will be their demise. The problem of tree growth at the evaporation ponds in the high iron/salt soil is not apparent. In fact, trees have leaves that are dark green showing a high iron content. Also, trees that have been knocked down have shown vigorous growth at the base. The grasses are growing well on all of the ponds. The harrowing planned for this spring will improve growth of the grasses and "dress down" the area.

   Tailing dike dust control will be a priority item this year. On the south side on the slopes of the emergency pond about 10,000 Atriplex canescens will be planted. These native shrubs have proven highly successful in vegetation areas and are presently being grown in the Kennecott greenhouse. In addition, seeding, fertilizing and harrowing will be concentrated upon the south and west side of the tailing dike for dust control. As of this date, the south slopes from Bravo Gate to the Toronto Cave have been seeded, fertilized and harrowed.

   About 10,000 seedling trees will be planted on the southwest side with the mechanical tree planter for a windbreak and dust control. (These trees are from the State Nursery). Thus far, on the south slopes, 70 trees (about 7' in height) have been planted. All of the trees have been pruned on the south side from Bravo Gate to the Toronto Cave as of this date.

   The DUP monument marker and Toronto Cave will be planted with more wild flowers and will be cleaned and maintained. The Bravo Gate will be maintained. The slopes of the Bonneville railroad line will be hydroseeded. The alfalfa planted five years ago around the Bonneville concentrator will be harrowed.

   The tailing dike itself will have an experimental planting project of sunflowers done during this year.

If you have any comments, please advise.

Pam Grubaugh

P. Grubaugh

/bja